

Amendments to the Claims

- 1 1. (currently amended) A method for generating FSK symbols in a
2 communications network, comprising:
3 partitioning a plurality of complex values representing OFDM tones
4 into a plurality of groups;
5 assigning a distinct energy to each group of complex values;
6 applying an OFDM modulator to the plurality of complex values
7 having the assigned distinct energies to generate FSK symbols
8 corresponding to the plurality of groups, in which a duration of each FSK
9 symbol is smaller or equal to a duration of an OFDM symbol for which the
10 OFDM modulator is designed; and
11 transmitting the FSK symbols serially.
- 1 2. (original) The method of claim 1, in which the OFDM modulator includes
2 a single IFFT, and the distinct energies are assigned to each group according
3 to a data stream.
- 1 3. (original) The method of claim 1, in which the OFDM modulator includes
2 a plurality of IFFTs operating in parallel, and outputs of the plurality of
3 IFFTs are selected according to a data stream.
- 1 4. (canceled)
- 1 5. (original) The method of claim 1, in which there are 128 tones and two
2 groups.

1 6. (original) The method of claim 2, in which a duration of each FSK symbol
2 depends on a spacing of the tones.

1 7. (original) The method of claim 1, further comprising:
2 detecting the FSK symbols in a OFDM receiver.

1 8. (original) An OFDM transmitter for generating FSK symbols in a
2 communications network, comprising:
3 means for partitioning a plurality of complex values representing
4 OFDM tones into a plurality of groups;
5 means for assigning a distinct energy to each group of complex
6 values;
7 an OFDM modulator configured to apply OFDM modulation to the
8 plurality of complex values having the assigned distinct energies to generate
9 FSK symbols corresponding to the plurality of groups, in which a duration
10 of each FSK symbol is smaller or equal to a duration of an OFDM symbol
11 for which the OFDM modulator is designed; and
12 means for transmitting the FSK symbols serially.